

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Atty. Docket

HUBERT C.F. MARTENS

PHNL 030310

SERIAL NO.: 10/509,454

GROUP ART UNIT: 2609

FILED: September 28, 2004

EXAMINER: H.G. Heyi

OPTICAL DATA STORAGE MEDIUM AND USE OF SUCH MEDIUM

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

AMENDMENT

In response to the Office Action mailed July 26, 2007,
please amend the above-identified application as follows:

IN THE ABSTRACT

Please amend the Abstract as per the following separate sheet:

ABSTRACT OF THE DISCLOSURE

Abstract:— ~~_____~~ An optical data storage medium ~~(10)~~ for recording by means of a focused radiation beam ~~(9)~~ having a wavelength λ , includes a substrate having an entrance face through which the beam enters the medium. The ~~medium at least comprises a substrate (1),~~ including ~~includes~~ a guide groove with a depth g . The ~~guide groove is present at the~~ on a side of the substrate opposite to the entrance face. A recording stack ~~(2,3) of layers is present,~~ adjacent the substrate ~~(1)~~ at the side of the guide groove. ~~The stack~~ includes a ~~write~~ write-once recording layer ~~(2) of a material having a complex refractive index $n_R = n_R + i \cdot k_R$ at the wavelength h and having a thickness d_R in the groove portion and a thickness d_U in the portion between grooves. A~~ adjacent the substrate, and a non-metallic layer (3) of a substantially transparent material, ~~is present~~ adjacent the write-once recording layer ~~(2). The groove depth g is in the range $(h/655) \cdot 20 \text{ nm} < g < (h/655) \cdot 140 \text{ nm}$ with h expressed in nm. This range achieves a sufficient push-pull tracking signal and a sufficient modulation of recorded marks.~~